UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF COMMERCIAL FISHERIES

CALIFORNIA FISHERY MARKET NEWS MONTHLY SUMMARY

June 1966

PART II–Fishing Information*

Sea-surface temperatures, fishing and research information of interest to the West Coast tuna-fishing industry and marine scientists

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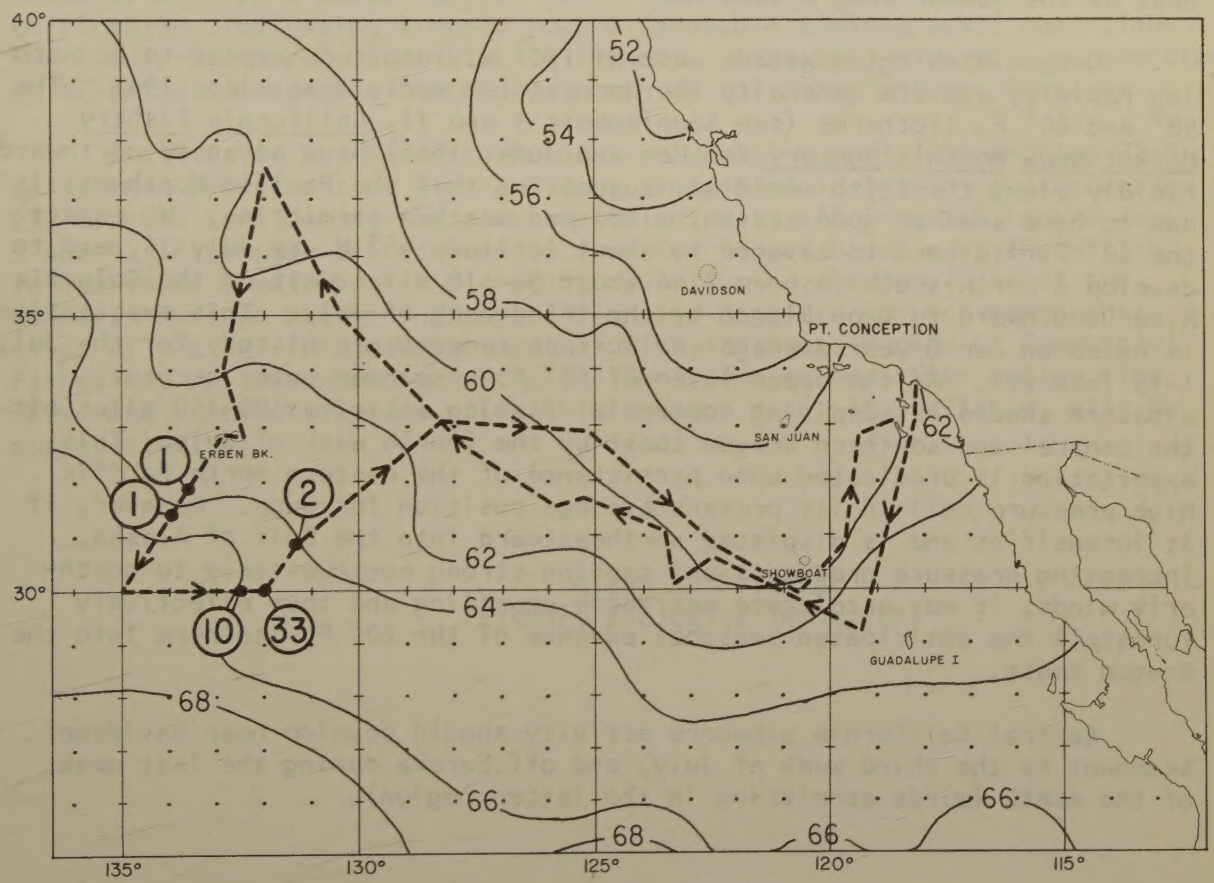
*Part 1 - "Fishery Products Production and Market Data" is issued by the Bureau of Commercial Fisheries, Market News Service, Post Office Building, San Pedro, California

ANNUAL QUEST FOR ALBACORE BEGINS

R/V N. B. Scofield, operated by the California Department of Fish and Game, completed a 3,000-mile preseason albacore tuna survey on June 23. Scofield's cruise, beginning on May 25, proceeded southwest from San Pedro to near Guadalupe Island, thence northwestward to 37.5° N., 132.0° W., thence south-southwestward over Erben Bank, and then east-northeast into San Pedro (see figure). Forty-seven albacore ranging from 6-14 pounds were landed. On June 13, in an area about 175 miles south-southeast of Erben Bank, Scofield took 33 albacore and lost 18 more in 65-65.5° F. water. Twenty-one fish were tagged and released during the cruise.



Cruise track of R/V N. B. Scofield, May 25-June 23, 1966, superimposed on sea surface isotherm field for June 1-15 interval. Numbers in circles represent albacore taken by Scofield June 10-14, 1966.

Two San Diego boats, Monsoon and Pacific Star, departed San Diego on May 23 to commence fishing on the Showboat Spot and thence west-northwestward up the 64-65° F. temperature band. Reports received from these boats indicated that by the end of June, they had searched the region as far west as Erben Bank, and had taken a few 6-8 pound fish.

Boats fishing inshore waters have not encountered any concentrations of albacore by the end of the month. Waters inside the Channel Islands have warmed to 68-69° F., and bluefin tuna schools were sighted near Santa Catalina and San Clemente Islands. Nearshore winds have been lighter than usual for this time of year, and coastal upwelling in southern California has been sharply reduced. Offshore from Point Conception about 200-250 miles, however, windy weather through June 30 has caused the 60° F. isotherm to remain almost stationary since the May 1-15 interval. Consequently, the southern California albacore season appears to be off to a somewhat tardy start, and promises to be an offshore fishery, requiring sport and commercial boats to reach out 100 miles or more as the inshore region continues to gain heat as the summer progresses.

Oregon-Washington waters west of 130° W. longitude appear to be warming rapidly, and are generally the warmest for early June since 1963. The 58° and 60° F. isotherms (see Supplements I and II, California Fishery Market News Monthly Summary for May and June, 1966) have advanced northward rapidly along the 135th meridian, suggesting that the Pacific Northwest is due to have another good season, winds and weather permitting. We expect the 60° F. isotherm to advance to about latitude 46° N. by July 15, and to develop a north-south inshore line about 90-110 miles west of the Columbia River southward to Cape Blanco by the third week of July. This expectation is based on our 6-year average sea surface temperature history for the July 1-15 interval. As the upper layer of 60° F. or warmer water deepens, albacore should be supplying commercial fishing activity 100-150 miles off the central and southern Oregon coast by the fourth week of July. This expectation is predicated upon persistence of the eastern north Pacific high pressure cell in its present average position for June. However, if it intensifies and is displaced northeastward into the Gulf of Alaska, increasing pressure gradients and causing strong northwesterly to northerly winds, it may accelerate nearshore upwelling and thus effectively forestall the anticipated seasonal advance of the 60° F. isotherm into the Oregon coast.

Central California albacore activity should develop near Davidson Seamount by the third week of July, and off Eureka during the last week of the month (winds permitting in the latter region).

Glenn A. Flittner
Fishery Biologist (Research)

MEMORIAL DAY BLUEFIN LINGER IN CAPE SAN LAZARO REGION

First reports of bluefin tuna fishing activity were received by this laboratory on Memorial Day, May 31. Bluefin were reported taken on Lusitania Bank, about 60 miles south of Pt. Tosco, in 66° F. water, and also at Uncle Sam Bank, about 90 miles northwest of Cape San Lazaro in 65-66° F. water. Winds and seas remained favorable during most of June, permitting the San Pedro-San Diego purse seine fleet to remain on the grounds during the interval. Reliable sources stated that approximately 5,000 tons of bluefin were taken during June in this region alone.

Guadalupe Island failed to produce bluefin during the winter-spring period this year, partly because of low midwinter and spring water temperatures. Bluefin were first reported inside the southern California Channel Islands by mid-June, and a few tons have been sold to the fresh fish market trade by San Pedro-based boats. Water temperatures continue to rise in this region, indicating a trend toward favorable oceanographic conditions for a July-September local bluefin fishery. Landings, however, are expected to be below average for the region north of the International Boundary.

The Mission Bay Research Foundation vessel Dorsal, cooperating with California Department of Fish and Game, succeeded in tagging and releasing 237 bluefin tuna during the purse seine activity off Cape San Lazaro June 3 and 4. Fishermen are advised to look for tagged bluefin as these fish follow their usual upcoast migratory route during the remainder of the summer. Persons recovering tagged fish are urged to contact representatives of the California Department of Fish and Game, Bureau of Commercial Fisheries, or Inter-American Tropical Tuna Commission, after noting time, date, and place of capture. Length or weight data, if available, will be appreciated.

Glenn A. Flittner
Fishery Biologist (Research)

SEA SURFACE TEMPERATURE CHARTS, EASTERN PACIFIC OCEAN

JUNE 1966

Acknowledgments

The following organizations and stations contributed data for the June 1966 charts:

U.S. Bureau of Commercial Fisheries Exploratory Fishing and Gear Research Base, Seattle, Washington
U.S. Bureau of Commercial Fisheries B ological Laboratories, La Jolla, California; Honolulu, Hawaii; and Seattle, Washington
U.S. Naval Communication Station Balboa, Fort Amador, Canal Zone
U.S. Naval Weather Service, Fleet Numerical Weather Facility, Monterey, California
U.S. Weather Bureau Port Meteorological Office, Cristobal, Canal Zone
U.S. Weather Bureau, San Diego, California
California Department of Fish and Game, R/V N. B. Scofield
Guadalupe Island, Coronado Island, Ensenada, Cedros Island and Puerto Cortes by Pedro Mercado of the Universidad Autonoma de Baja California, Ensenada, Mexico
Hopkins Marine Station, Pacific Grove, California by J. P. Balesteri
Instituto Hidrografico de La Armada, Valparaiso, Chile by M. Arancibia aboard B. E. Esmeralda
Instituto Nacional de Pesca del Ecuador, Guayaquil, Ecuador by L. Arriaga
Inter-American Geodetic Survey by David Ortega at Manzanillo, Mexico; Rene Cortes at Salina Cruz, Mexico; L. A. Peren at Pt. Armuelles, Panama; V. E. Castillo at Tumaco, Colombia; S. Valenzuela at La Libertad, Ecuador; C. Arroyo, E. Guerrero and V. Huatay at Talara, Peru; J. Cardenas at San Juan, Peru
Inter-American Tropical Tuna Commission, La Jolla and Terminal Island, California
Kelco Company, San Diego, California
Pacific Oceanographic Group, Nanaimo, British Columbia, by H. J. Hollister from observations by T. Collins at Quatsino Lightstation; W. R. Raithby at Cape St. James Light; O. A. Edwards at Amphitrite Point Light; G. C. Wilkes at Langara Island Light
Scripps Institution of Oceanography, La Jolla, California by Margaret Robinson and Hans Klein
W. R. Grace and Company, New York, New York by Dr. I. William Lane
Ships Royal Pacific, Californian, Monsoon and West Point

Charts

Figure 1.--Mean sea surface temperatures (°F) derived from approximately 8000 observations. Squares show temperatures at weather ship stations. Numerals on shore are temperatures at coastal and lightship stations.

Figure 2.--Deviation of sea surface temperatures (°F) from long term charts of H.O. 225. Hatched areas are colder in 1966.

Figure 3.--Deviation of sea surface temperatures (°F) from those of June 1965. Hatched areas are colder in 1966.

Figure 4.--Sea surface temperatures (°F) by 1-degree squares, approximately 2000 observations. Line under temperatures indicates average of two or more observations. Numerals on shore are temperatures at coastal stations.

Figure 5.--Deviation of sea surface temperatures (°F) June 1966-June 1965 by 1-degree squares. Shaded areas are colder in 1966.

Figure 6.--Deviation of sea surface temperatures (°F) from 12-year mean (1947-1958) by 2-degree squares. Shaded areas are colder in 1966.

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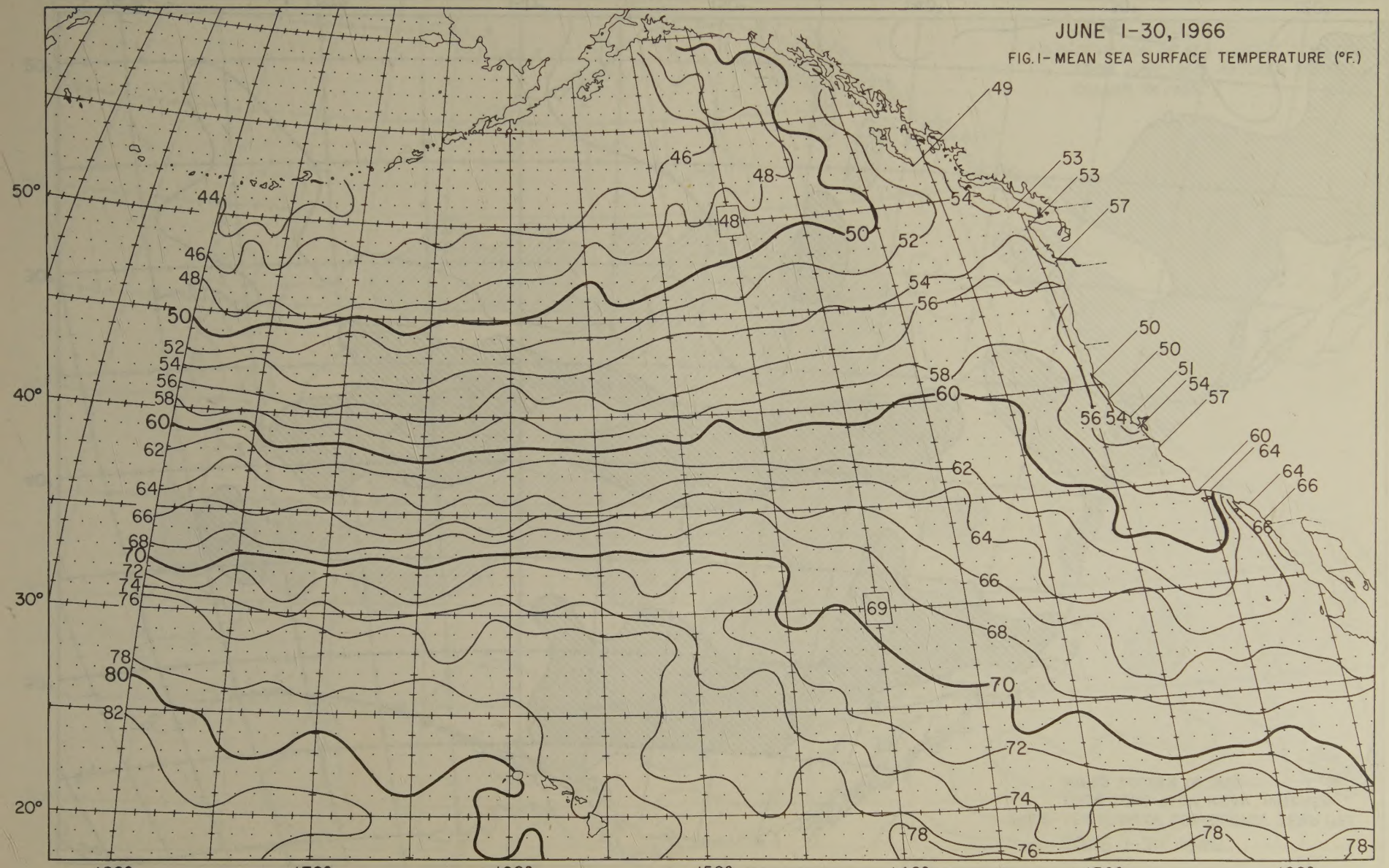
Fishery Biologist (General)


JUNE 1-30, 1966
FIG. 1- MEAN SEA SURFACE TEMPERATURE (°F.)
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
49
53
53
57
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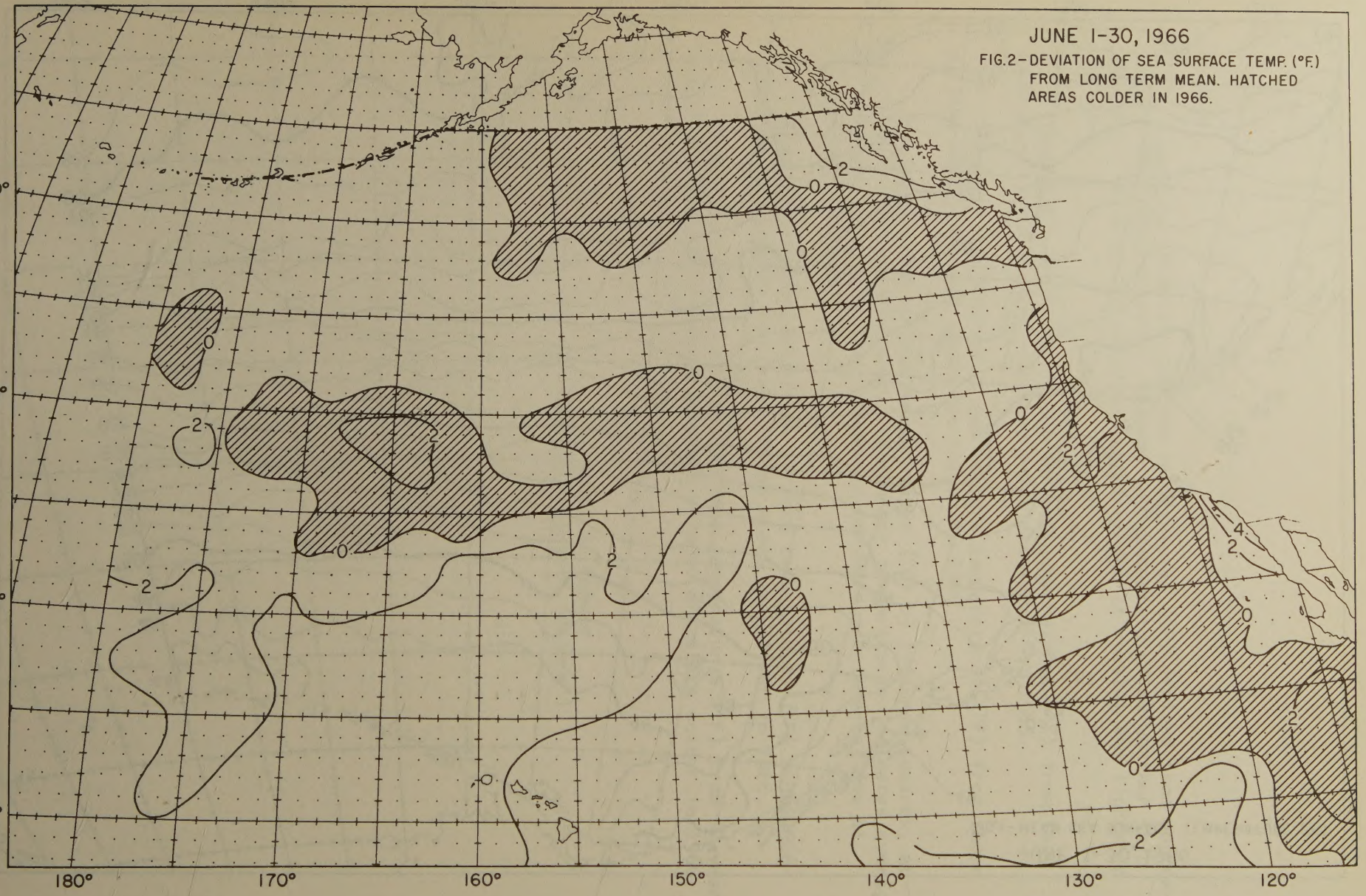
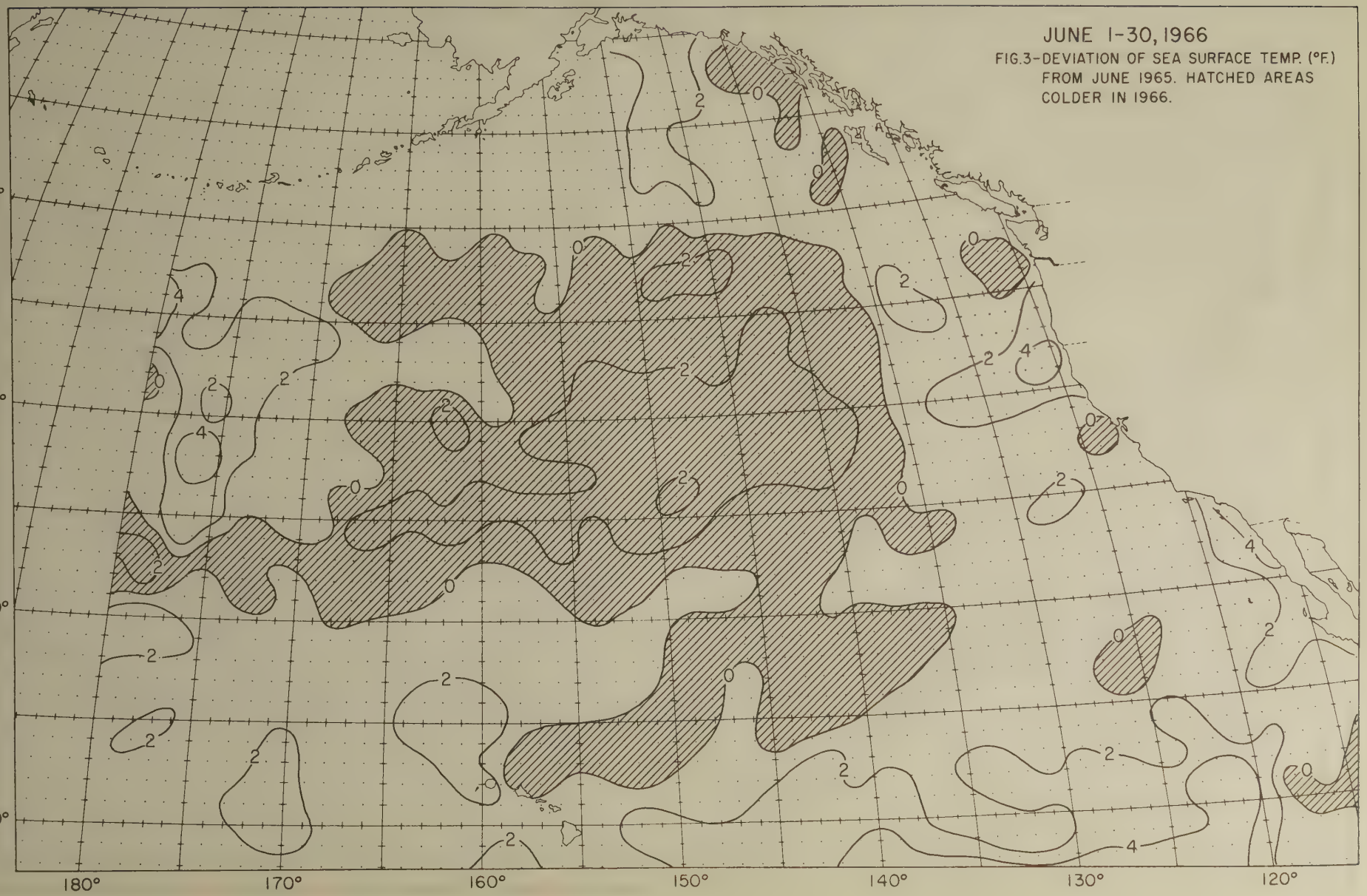
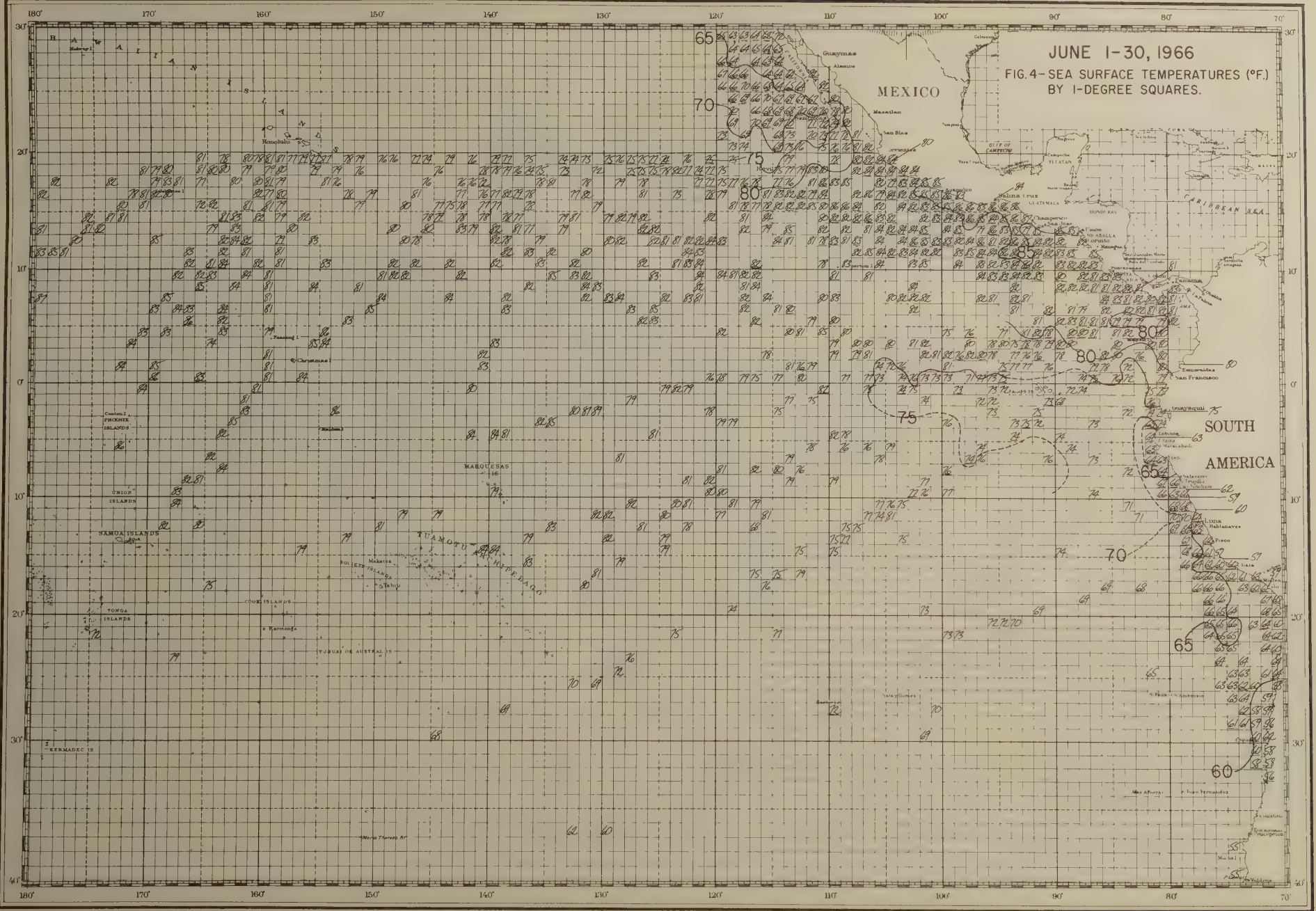
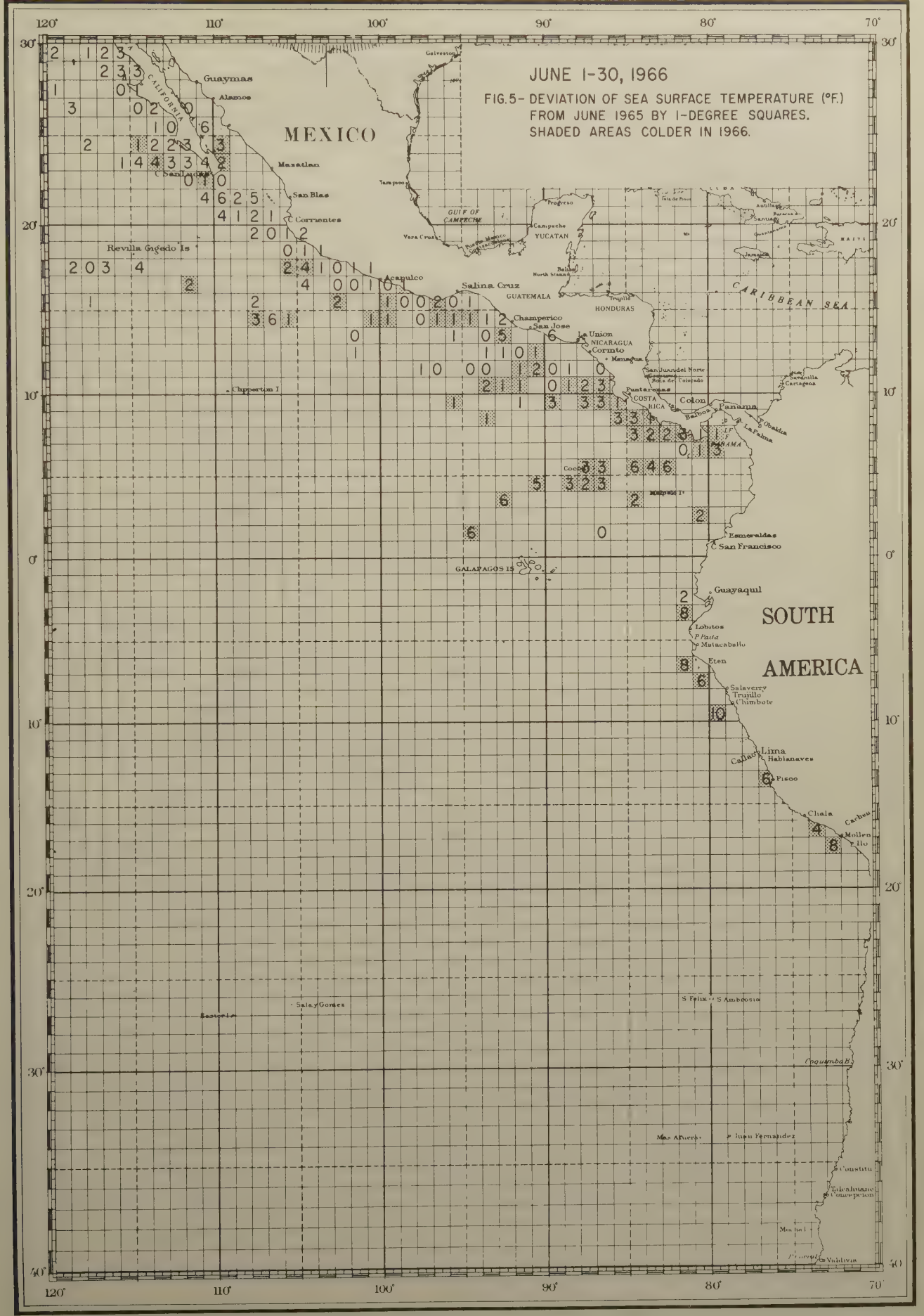
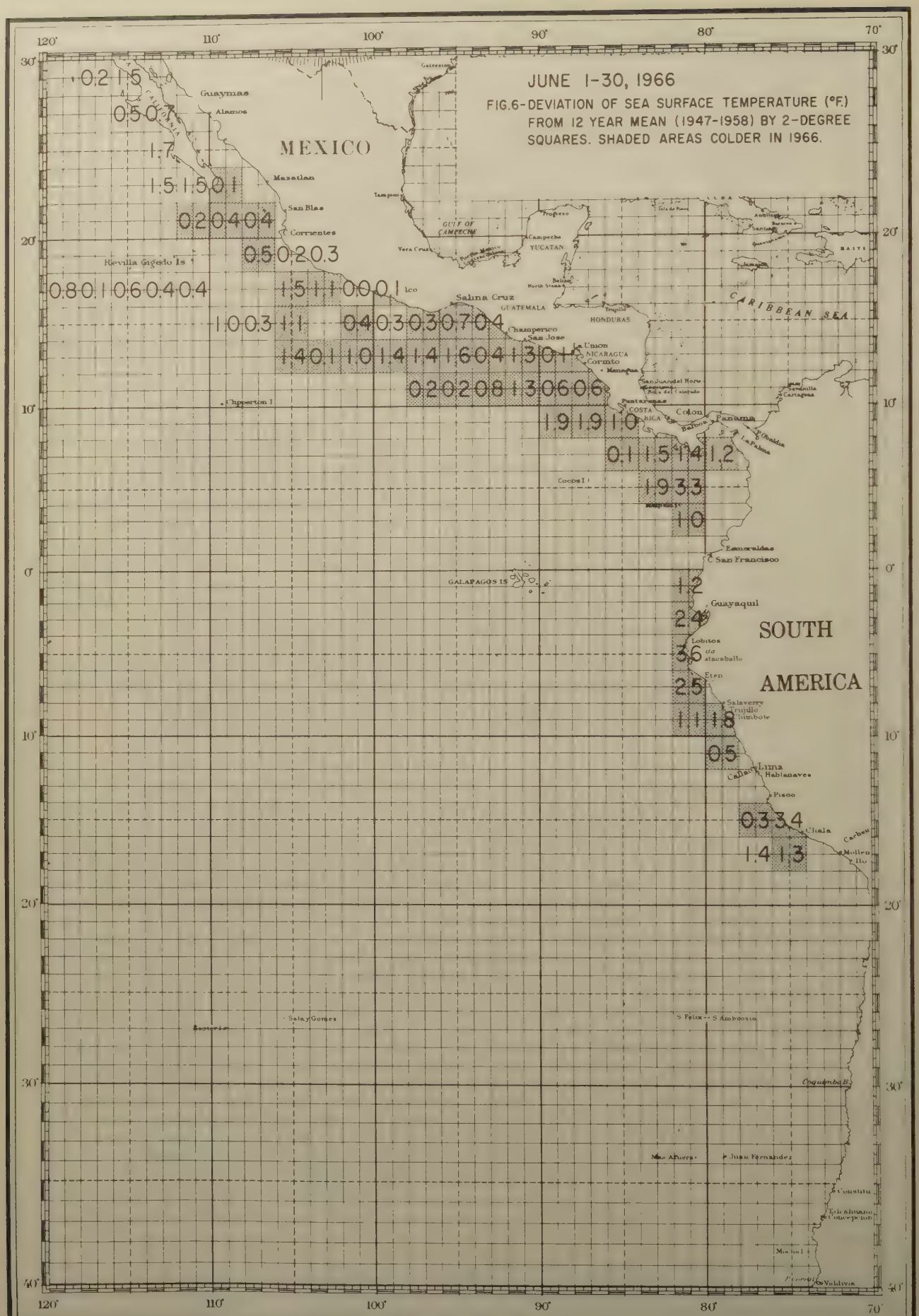
69

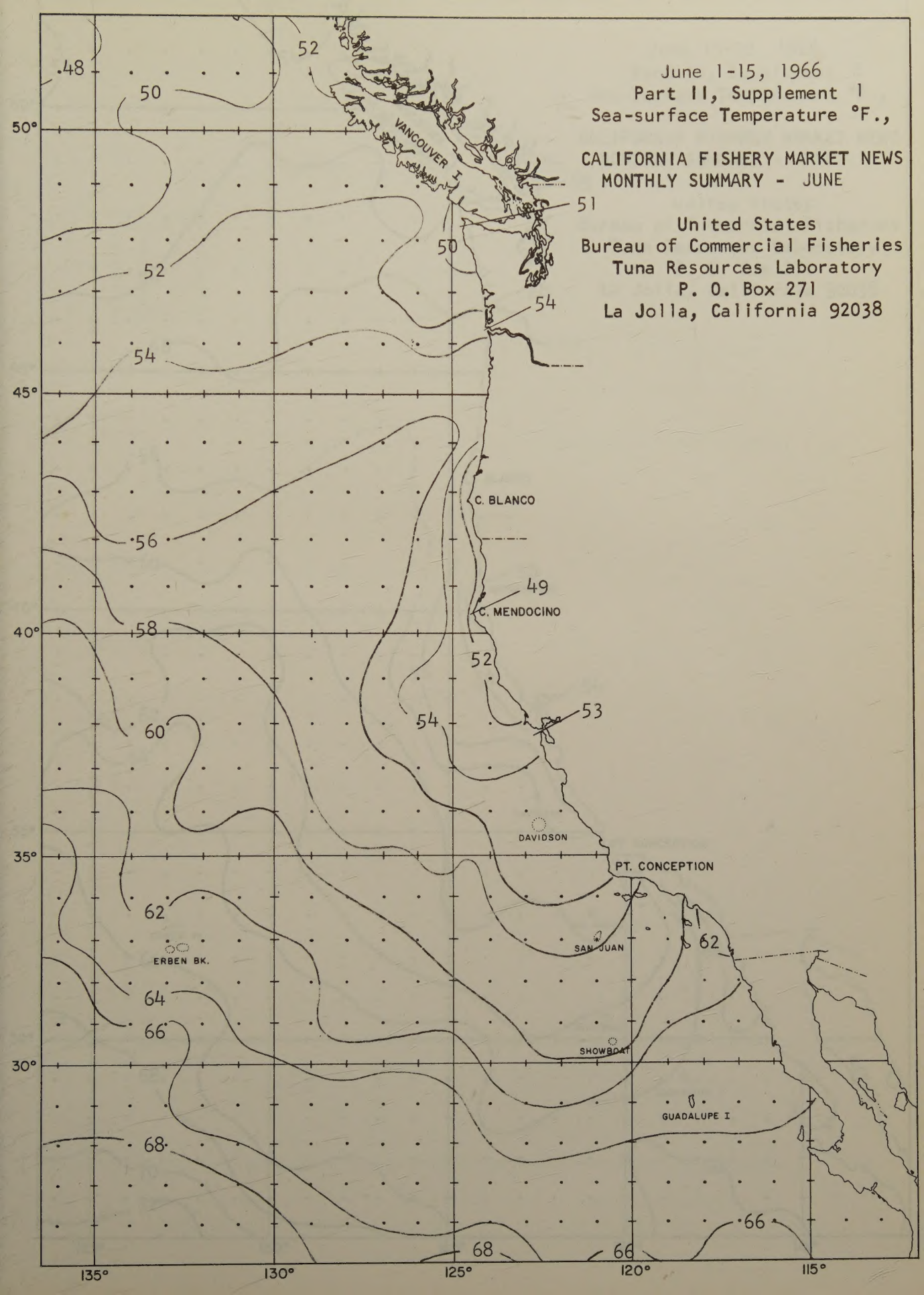

JUNE 1-30, 1966
FIG.2-DEVIATION OF SEA SURFACE TEMP. (°F.) FROM LONG TERM MEAN. HATCHED AREAS COLDER IN 1966.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
0
2
4


JUNE 1-30, 1966
FIG.3-DEVIATION OF SEA SURFACE TEMP. (°F.) FROM JUNE 1965. HATCHED AREAS COLDER IN 1966.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°


JUNE 1-30, 1966
FIG. 4 - SEA SURFACE TEMPERATURES (°F.) BY 1-DEGREE SQUARES.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
HAWAIIAN ISLANDS
Honolulu
Johnston I.
Palmyra I.
Fanning I.
Christmas I.
Canton I.
PHOENIX ISLANDS
Hull I.
MARQUESAS
UNION ISLANDS
SAMOA ISLANDS
TUAMOTU ARCHIPELAGO
Makatea
TONGA ISLANDS
COOK ISLANDS
Rarotonga
TUBUAI OR AUSTRAL IS.
KERMADEC IS.
Easter I.
Juan Fernandez
Mas Afuera
Guaymas
Alamos
Mazatlan
San Blas
Manzanillo
Acapulco
Salina Cruz
Tampico
Veracruz
Progreso
Campeche
YUCATAN
GUATEMALA
HONDURAS
Panama
Guayaquil
Callao
Lima
Mollendo
Arica
Iquique
Antofagasta
Valparaiso
San Francisco
Easter I.


JUNE 1-30, 1966
FIG. 5- DEVIATION OF SEA SURFACE TEMPERATURE (°F.) FROM JUNE 1965 BY 1-DEGREE SQUARES. SHADED AREAS COLDER IN 1966.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
GUATEMALA
HONDURAS
NICARAGUA
COSTA RICA
PANAMA
YUCATAN
GULF OF CAMPECHE
CALIFORNIA
GALAPAGOS IS
Guaymas
Alamos
Mazatlan
San Blas
Corrientes
Revilla Gigedo Is
Acapulco
Salina Cruz
Champerico
San Jose
La Union
Corinto
Managua
Punta Arenas
Colon
Panama
Esmeraldas
San Francisco
Guayaquil
Lobitos
Talara
Eten
Salaverry
Trujillo
Chimbote
Lima
Callao
Pisco
Chala
Mollendo
Ilo
Easter Is
Sala y Gomez
S. Felix
S. Ambrosio
Juan Fernandez
Coquimbo
Constitucion
Concepcion
Valdivia
Progreso
Campeche
Vera Cruz
Tampico
Galveston
Belize
Trujillo
Cartagena
Barbados
Aruba
Curacao
Jamaica
HAITI
CUBA
Fata de Pinos
Agulla
Santiago
Chipperton I
Cocos I
Malpelo I
Obaldia
La Palma
Cabo Blanco
Paita
Matacaballo
Cayo
Callao
Mocha I
Arauco
Talcahuano
Mas Afuera
Mas Tierra
Coquimbo B
Constitucion
Concepcion
Valdivia


JUNE 1-30, 1966
FIG.6-DEVIATION OF SEA SURFACE TEMPERATURE (°F.) FROM 12 YEAR MEAN (1947-1958) BY 2-DEGREE SQUARES. SHADED AREAS COLDER IN 1966.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
GULF OF CAMPECHE
GALAPAGOS IS
Guaymas
Alamos
Mazatlan
San Blas
Corrientes
Revilla Gigedo Is
Salina Cruz
GUATEMALA
HONDURAS
Champerico
San Jose
NICARAGUA
Corinto
Managua
Punta Arenas
COSTA RICA
Colon
Panama
Coco I
Esmeraldas
San Francisco
Guayaquil
Lobitos
Eten
Salaverry
Trujillo
Chimbote
Callao
Luna
Pisco
Chala
Mollendo
Salaverry
Gorgona
S Felix - S Ambosio
Juan Fernandez
Valdivia
120°
110°
100°
90°
80°
70°
30°
20°
10°
0°
40°


June 1-15, 1966
Part II, Supplement 1
Sea-surface Temperature °F.,
CALIFORNIA FISHERY MARKET NEWS
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United States
Bureau of Commercial Fisheries
Tuna Resources Laboratory
P. O. Box 271
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VANCOUVER I.
C. BLANCO
C. MENDOCINO
DAVIDSON
PT. CONCEPTION
SAN JUAN
SHOWBOAT
ERBEN BK.
GUADALUPE I
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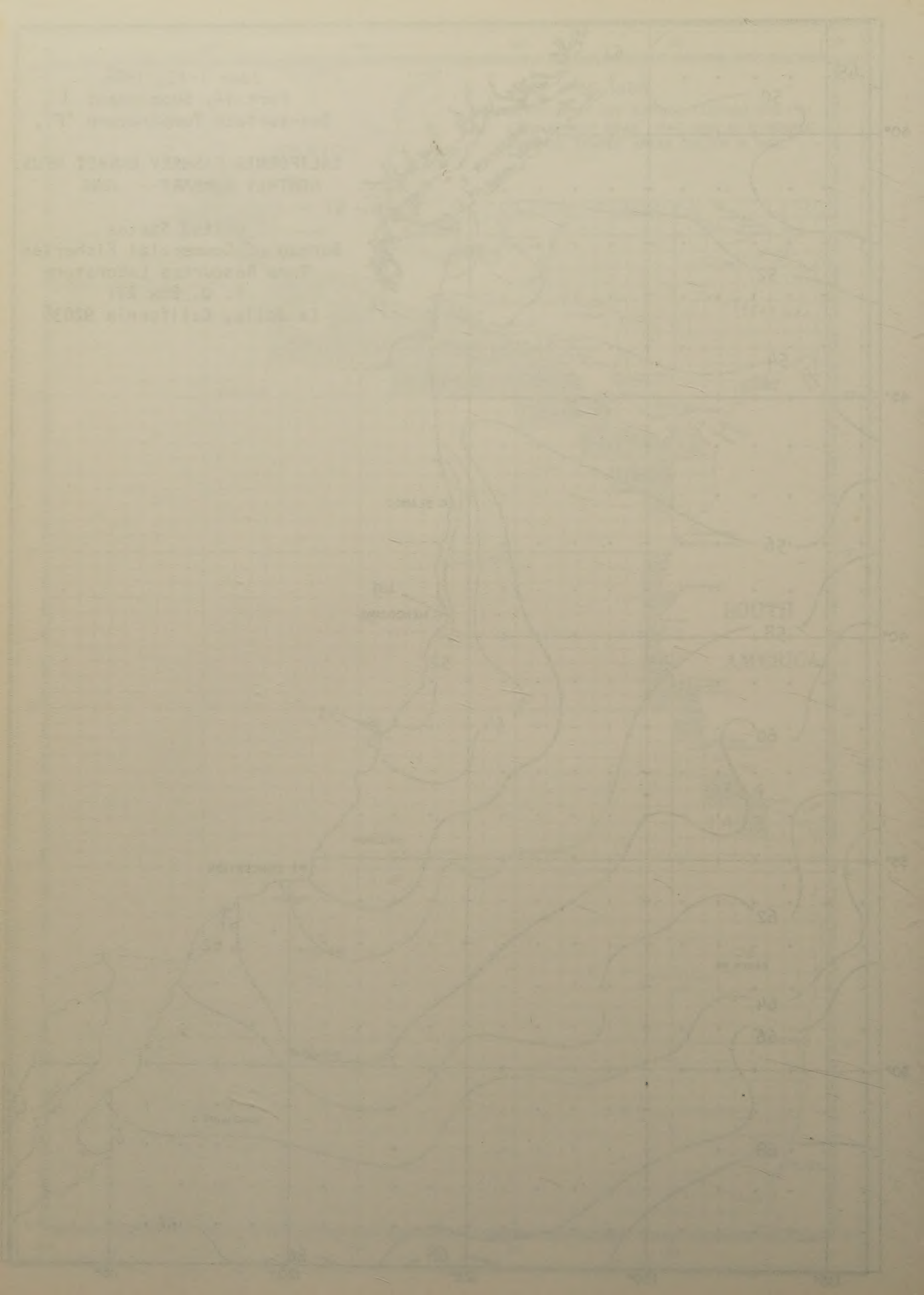

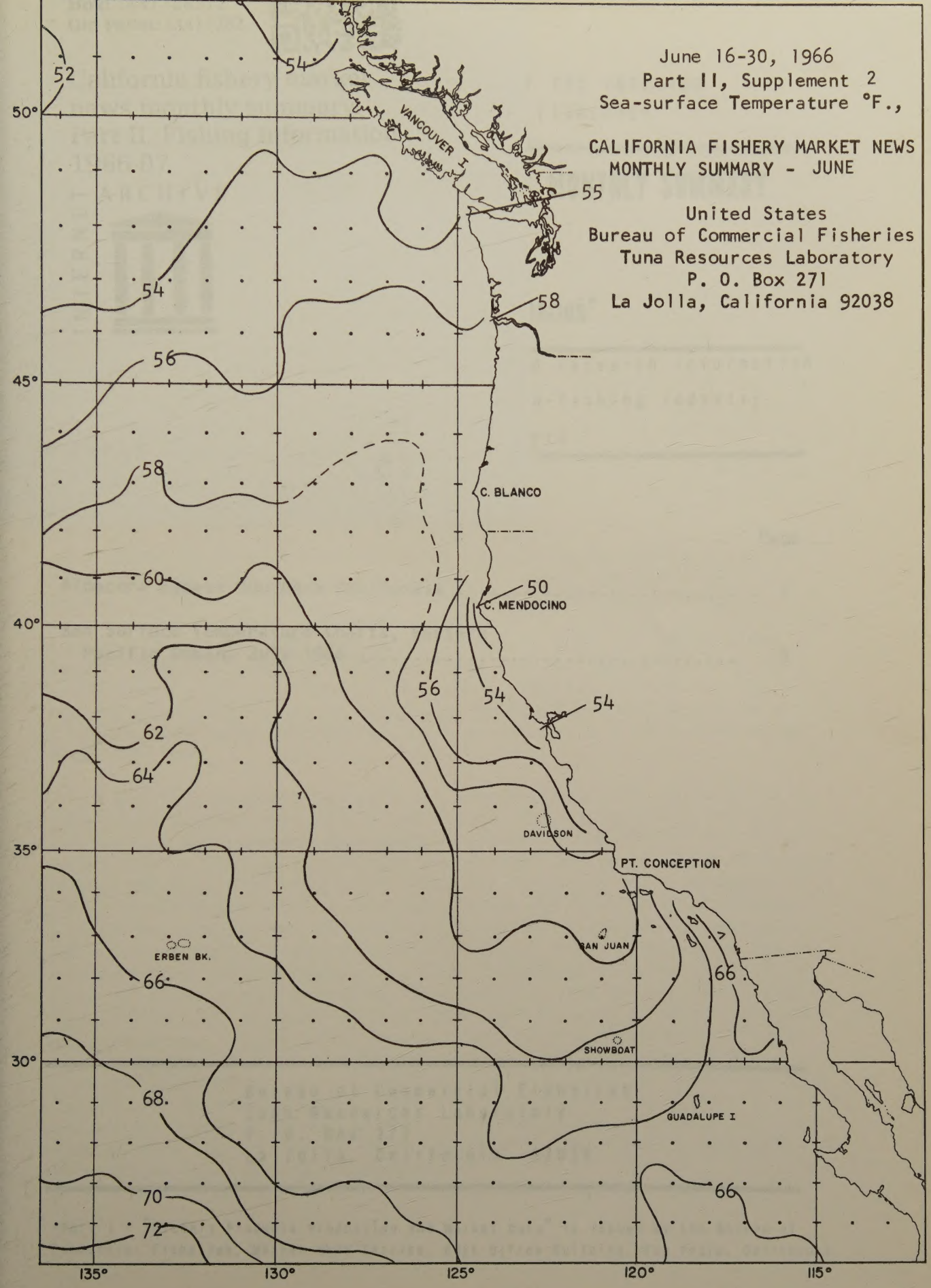
June 16-30, 1966
Part II, Supplement 2
Sea-surface Temperature °F.,
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VANCOUVER I.
C. BLANCO
C. MENDOCINO
DAVIDSON
PT. CONCEPTION
SAN JUAN
ERBEN BK.
SHOWBOAT
GUADALUPE I
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